Overview of Department of Energy Environmentally Preferable Purchasing Programs

December 2007

Don Lentzen

Office of
Environmental Policy and Assistance (HS-22)

Outline

Environmentally Preferable Purchasing (EPP) at DOE:

- Definitions & Program Benefits

- Regulatory Drivers

- Preferred Products

- Overview of Reporting Requirements

- Available Resources and Contact Information

Environmentally Preferable Purchasing

Office of Health, Safety and Security

- ■ **Definition:**

  Acquisition of products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

- ■ **Benefits:**
  - Conserves nation's resources
  - Meets federal regulations
  - Makes good business $ense
  - Conserves DOE's resources
  - Meets DOE policy

What is Environmentally Preferable Purchasing at DOE?

- Waste reduction & minimization
- EPP
  - Alternative fuels/vehicles
  - Biobased products
  - Energy and water efficient products
  - Non-ozone depleting substances
  - Recycled products
- Electronics stewardship
- Sustainable buildings
- Requirements in DOE O 450.1A, *Environmental Protection Program*

Drivers for Agency Purchasing of Green Products

- Legislation: RCRA, CAA, FSRIA, EPAct 2005

- Executive Orders: 13221, 13423 (replaces EO13101, 13123, 13134, 13148, 13149)

- Memoranda of Understanding:
  - Federal Electronics Challenge
  - High Performance and Sustainable Buildings

- Federal Acquisition Regulation (FAR)

- DOE Acquisition Regulation (DEAR)

- DOE Orders 450.1A and 430.2B and 413.3A

- DOE Acquisition Guide (Chapter 23)

Why Does the Government Target Itself for Green Purchasing?

- U.S. consumes approximately 25% of the world's resources with 5% of the world's population

- Federal government is country's largest purchaser of goods and services: $370 billion per year

- Government can create markets for more environmental products, leading to greater product availability and competitive pricing

Why Does DOE Target Itself for Green Purchasing?

- FAR 23.703 lists the following environmental objectives:

  - Maximize use of Affirmative Procurement Program (recovered or biobased content designated by the EPA or USDA)

  - Promote energy efficiency (ENERGY STAR®/FEMP)

  - Promote water efficiency (WaterSense labeled products)

  - Eliminate or reduce the generation of hazardous waste

  - Promote the use of nonhazardous and recovered material

  - Realize life-cycle cost savings

  - Promote cost-effective waste reduction

  - Substitute safe alternatives to ozone-depleting substances (FAR 23.803)

Cost Comparison Examples of Green Purchasing

- Paint (latex) $16.00/gal
  Recycled paint (meets commercial paint specs)   *$8.25*

- Toner cartridge (Canon Machines) $67.74
  Remanufactured toner cartridge   *$30.67*

- Paper/ream (truck-load) $3.13
  Recycled paper   *$2.55*

- Binders (3" White slant "D" /w clear covers) $11.59
  Recycled binders   *$6.28*

Product Categories

- ## Affirmative Procurement
  - Biobased content
  - Recycled content

- ## Other Preferred Procurement
  - Alternative fuels/vehicles
  - EPEAT registered electronic equipment
  - Energy and water efficient
  - Non-ozone depleting substances
  - Sustainable building materials
  - Other environmentally preferable attributes

Biobased Product Categories Defined by USDA

- adhesives
- carpet/fibers
- cleaners/solvents
- construction materials
- fuel additives
- inks

- landscaping
- lubricants
- packaging
- paint/coatings
- papers
- plastics
- sealants
- sorbents

USDA Designated Biobased Products

- **Purchasing preference required by USDA starting March 2007:**

	Percentage biobased by weight
Hydraulic fluids for mobile equipment	44%
Lubricants, penetrating	68%
Diesel fuel additives	90%
Urethane roof coating	20%
*Water tank coating	59%
*Bedding, bed linens, towels	12%

* Required starting November 2007

EPA Designated Recycled Products

Purchasing preference required for all Federal agencies:

- **Office:** binders, containers, folders, furniture, paper, toner cartridges.

- **Custodial supplies:** tissue/towels, recycle/trash containers & bags.

- **Construction:** carpet, cement, fiberboard, insulation, paint, roofing.

- **Landscaping:** compost, edging, hoses, lumber, mulch, posts, timbers

- **Park/recreation:** benches, fencing, surfaces, tables, tracks

- **Transportation:** barricades, channelizers, cones, delineators, parking stops

- **Vehicular:** coolants, parts, oil, tires

- **Miscellaneous:** awards, bike racks, drums, mats, signs, sorbents, strapping

Exceptions to Purchasing Requirements

- Cost, availability, performance

- <u>No</u> exceptions for paper, 30% post-consumer, if unavailable 20%

- If unavoidable conflict, recycled content takes precedence over biobased content

- Maintain written justification on file for any products not meeting specifications if cost over $2500, proposed legislation would require reporting these exceptions

- Justification template available at HSS home page
  http://www.hss.energy.gov/nuclearsafety/nsep/p2/epp/library/exemjus.doc

Alternative Fuels and Vehicles

- EPAct 1992 mandates 75% of a Federal fleet's covered vehicle (under 8,500lb) acquisitions be alternative fuel vehicles (AFV)

- EPAct 2005 Section 701d requires dual fuel vehicles be operated on alternative fuels unless waiver approved by DOE

- EO13423 mandates

  - Reduction in fleet's total consumption of petroleum products by 2% annually through end of fiscal year 2015

  - Increase in total fuel consumption that is non-petroleum-based by 10% annually

  - Use of plug-in hybrid (PIH) vehicles when PIH vehicles are commercially available at a cost reasonably comparable, on the basis of life-cycle cost, to non-PIH vehicles

EPEAT Registration Requirements

- 51 environmental performance criteria: 23 required and 28 optional

- Manufacturers choose tier level for products
  - Bronze, Silver, and Gold

- More than 500 products are currently EPEAT-registered

What is EPEAT©?

EPEAT Bronze – Meets the 23 required criteria

EPEAT Silver – Meets 23 required criteria and at least 50% of the optional criteria

EPEAT Gold – Meets 23 required criteria and at least 75% of the optional criteria

10

Federal Electronics Challenge

Examples of a few criteria in EPEAT standard

- Restricts cadmium, hexavalent chromium, lead, mercury
- Specifies less material or post-consumer recycled or biobased plastic content
- Specifies design for longevity, reuse, take back including packaging
- Specifies Energy Star® certified equipment

Examples of how to reduce computer purchases

- Buy laptop with docking station instead of desktop and laptop
- Install a Watt Stopper ®
- Become a Federal Electronics Challenge Partner

Energy Efficient Products

- Must specify ENERGY STAR®/FEMP criteria in all contracts per FAR revision of 11/23/07 with contract clause for all contracts for energy using products including construction, A-E, renovations, services
- Must have 80 Plus Power Supply/ES 4.0 to be labeled ENERGY STAR® effective July 2007
- Types of Products with ENERGY STAR®/FEMP criteria (energystar.gov/fedofficeenergy):
    - Appliances (clothes washers, dishwashers, freezers, refrigerators)
    - Commercial Equipment (boilers, chillers, coolers, heat pumps)
    - Construction (doors, roofing, windows)
    - Electronic/Office Equipment (computers, copiers, monitors, printers)
    - Food service equipment (vending machines)
    - Lighting (compact fluorescent, exit signs)
    - Plumbing (faucets, showerheads, urinals, water heaters)

Water Efficient Products

- Must give preference to purchase of water efficient products, including those meeting EPA's WaterSense standards (http://www.epa.gov/watersense/) per Executive Order 13423

- Types of products and services with WaterSense standards
  - Faucets
  - Irrigation control technologies
  - Irrigation services
  - Toilets

Substitutes for Ozone Depleting Substances

- SNAP: Significant New Alternatives Policy
  - Under Section 612(c) of the Clean Air Act, EPA is authorized to identify and publish lists of acceptable and unacceptable substitutes for class I or class II ozone-depleting substances.

- Substitutes for ozone depleting substances relevant to DOE sites:
  - Adhesives, coatings, ink
  - Aerosols
  - Cleaning solvents
  - Fire suppression & explosion protection
  - Refrigeration & air conditioning

Sustainable Buildings

- Meet or exceed statutory goals and address 5 *Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (HPSBs),* as outlined in the Memorandum of Understanding for HPSBs

- Apply to new construction and renovation if capital asset threshold and new, renegotiation, or extension of leases for Federal occupancy

- As required by EO 13423, have15% of existing buildings in FY2015 capital asset building inventory meet *Guiding Principles*

How to Specify Green Products

- Purchase request

- Purchasing card

- Statements of work and requests for proposal

- Contracts and preferred customer agreements

- Template language for a wide variety of products available at:

http://yosemite.epa.gov/oppt/eppstand2.nsf/Pages/Search.html?Open

Verify Products and Services Meet the Requirements

- Ask for <u>percentage</u> of biobased/recycled content, not just yes or no

- Ask for demonstration of vendor's products and quality assurance program

- Verify products meet all other national standards (ANSI, ASTM) for commercial products

- Ask for free products to test

- Ask for free training on how to install and use products

- Set up closed loop contracts for carpet, cartridges, ceiling tiles

Overview of Annual Green Purchasing Reporting Requirements

- **EPP/P2 Data Website** (required by HSS)
  http://www.hss.doe.gov/pp/dataentry.html

- **Energy Website** (required by EE)
  http://www1.eere.energy.gov/femp/about/reporting_guidance.html

- **Federal Automotive Statistical Tool (FAST)** (required by EE)
  https://fastweb.inel.gov

- **Federal Buildings Database** (required by EE)
  www.eere.energy.gov/femp/highperformance/index.cfm
  FPDS Federal Procurement Data System (new)

OMB Scorecard Reports

- **Environmental Scorecard – Green Purchasing**
  (HSS Coordinating)

- **Energy and Water Scorecard – Energy Efficiency Purchases** (EE Coordinating)

- **Transportation Scorecard – Fleet Efficiency Purchases**
  (EE Coordinating)

DOE EPP Annual Data Questionnaire

- Electronics Stewardship – EPEAT registered products

- Biobased Content Products – USDA designated products

- Recycled Content Products – EPA designated products

DOE P2 Annual P2 Data Questionnaire Affecting EPP

Input required for Pollution Prevention and DOE Order 450.1A reporting:

- Established EPP purchasing objectives and measurable targets in the Environmental Management System

- Identified sources needed to implement EPP goal and site-specific objectives in budget

- Participated in voluntary partnerships, such as WasteWi$e and Federal Electronics Challenge

- Received EPP awards

Why Do We Have to Gather Data on Our Successes?

- Congress requires reporting of Comprehensive Procurement Guidelines designated recycled content items

- Report to the President biannually

- DOE contracts require reporting of most items

Reviews and Audits

- Audit of site EPP Program part of Environmental Management System audit

- EPA RCRA Section 6002 compliance inspections

- Section 3 of EO 13423 directs agency heads to establish a program for environmental compliance review and audit.
    - internal review and part of the continual improvement process of EMS of which the Environmentally Preferable Purchasing Program is a part per EO 13423.

Celebrate Successes with Pats on the Back and Awards

- Establish Green Purchaser Pat-on-the-Back Awards

- Publish and advertise success stories

- Nominate your staff for DOE-HQ awards and compete for White House Closing the Circle Awards

Resources for Green Product Information

- DOE Environmentally Preferable Purchasing
  http://www.hss.doe.gov/pp/epp/

- Alternative Fuels/Vehicles
  http://www1.eere.energy.gov/vehiclesandfuels/epact/federal/

- Biobased Products http://www.biobased.oce.usda.gov/fb4p/Catalog.aspx

- Electronic Equipment http://www.epeat.net/

- Energy/Water Efficient Product
  http://www1.eere.energy.gov/femp/procurement/
  http://www1.eere.energy.gov/femp/water/index.html

- Non-Ozone Depleting Substances http://www.epa.gov/docs/ozone/snap/

- Recycled Products http://www.epa.gov/epaoswer/non-hw/procure/products.htm

- Sustainable Buildings http://www.wbdg.org/

Resources for Green Product Information (continued)

- Fed Center
  http://www.fedcenter.gov/programs/buygreen/

- Office of the Federal Environmental Executive
  http://www.ofee.gov

- EPA EPP Database
  http://yosemite.epa.gov/oppt/eppstand2.nsf/Pages/Search.html?Open

- DOE-HQ Blanket Ordering Agreements
  http://www.management.energy.gov/1364.htm

- DOE-HQ Bulk Purchasing Tool for ENERGY STAR Equipment
  http://www.quantityquotes.net/default.aspx

Contacts for
EPP Information

- **Procurement - Richard Langston / Michael Raizen, MA-61,** 202-287-1339 / 202-287-1512

- **Affirmative Procurement of Biobased and Recycled Products - Don Lentzen HS-22,** 202-586-7428

- **Construction Materials and Equipment** – Anne Crawley, FEMP, 202-586-1505

- **Electronic Equipment - Jeff Eagan, HS-22,** 202-586-4598

- **Energy/Water Efficient Products - Cyrus Nasseri, EE-2L,** 202-586-9138

- **Non-Ozone Depleting Substances - Emile Boulos, HS-22,** 202-586-1306

- **Vehicle Efficient/Alternative Fuels - Brad Gustafson, FEMP,** 202-586-5865

- **Environmentally Preferable Purchasing** – Don Lentzen, 202-586-7428